GUIDE

TO THE

VALUE OF CALIFORNIA GOLD.

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VALUE OF CALIFORNIA GOLD.

SINCE December 8th, 1848, when the first deposit of gold from California was made in this Mint, there have been presented here for coinage 3845 deposits, of the value of $11,420,000, the product of that country; 1842 deposits, worth $5,550,000 during the first thirteen months, and the remainder, or 2003 deposits, worth $5,870,000, since the first of this year.

As the mines of California are considered almost inexhaustible, and will, doubtless, give up their treasures with increasing rapidity, in proportion to the number of adventurers who go thither in pursuit of them, it may be confidently expected, that the influx of gold from this source will increase for years to come; and it will, therefore, prove interesting and useful to all concerned, to possess some information respecting its value, as determined by the difference in its fineness and weight.

For the sake of order, this information is given under separate heads and in tabular form.

I. Forms of California Gold, and General Difference of Quality.

The different forms in which California gold has been brought to the Mint, are lumps and grains, bars, coins, and amalgam: of the last three, there have been but few deposits.

It has been ascertained by the Assayers of the Mint that, as a general rule, "the flat spangles of the rivers, are better than the average of other grains, perhaps as much as one per cent., while the large lumps appear to be higher, generally, than either, not invariably so."

By reference to Table A, it appears that *seven-eighths* of all the deposits made in the Mint, from the commencement of the California business to the present period, show a variation in quality of only 50 cents per ounce troy, the fineness ranging between $873\frac{1}{2}$ thousandths and $898\frac{1}{2}$ thousandths.

The average *fineness* of nearly all the California gold brought to the Mint, is 886 thousandths: the flat spangles of the rivers, which bear a small proportion to the mass, average 895 thousandths. Reference to Table B, will give the average *value* of both kinds per ounce troy after melting, with and without an allowance for silver parted.

II. Characteristics.

"The alloy of California gold, ordinarily, is wholly silver with a little iron." The iron and dirt or sand, are removed by melting, occasioning an average loss in weight of about $3\frac{1}{4}$ per cent. If the grains have been cleansed by the magnet,

the loss is reduced to about $2\frac{1}{2}$ per cent.; but if the grains are dampened or wet, the loss may rise to 4 per cent., or even higher.

California gold is regarded as consisting of 995 parts of gold and silver in every 1000 parts by weight, which renders it necessary to separate these metals before they are converted into coin. An allowance for the silver is made to the depositor, providing the quantity deposited is sufficiently large to yield five dollars, after paying the expenses of parting, as estimated according to the Tariff of Mint charges fixed by the Director of the Mint, with the concurrence of the Secretary of the Treasury.

III. Mode of Valuation.

According to law, the standard gold of the United States is so constituted, that in 1000 parts by weight, 900 shall be of pure gold, and 100 of an alloy composed of copper and silver.

387 ounces of pure gold are worth $8,000, and 99 ounces of pure silver are worth $128.

These relations furnish the following proportions, from which are readily derived the subjoined rules.

FOR GOLD.

As $1000 : \frac{8000}{387}$ or, as $387 : 8 : :$ the given weight multiplied by its particular fineness in thousandths : the value of said weight.

FOR SILVER.

As $1000 : \frac{128}{99}$, or as $99000 : 128 : :$ the given weight multiplied by its particular fineness in thousandths : the value of said weight.

RULES.

To find the value in United States money of any number of ounces troy of gold or silver, the weight and fineness being given.

FOR GOLD.

Multiply the given weight by the fineness and by 8, and divide the product by 387.

FOR SILVER.

Multiply the given weight by the fineness and by 128, and divide the product by 99000.

It has already been stated that when the quantity of California gold is of sufficient weight, the silver it contains is parted for the benefit of the depositor. For the information of those who would be thus benefited, there is furnished in Table B, a series of minimum weights, which, at different degrees of fineness, yield five dollars after paying parting charges. The value, with and without silver, per ounce troy after melting, is also given in this table for every grade of fineness from $848\frac{1}{2}$ thousandths to 923 thousandths, in six divisions or classes, and at the foot of each division is stated the number of deposits which have been made in the Mint, of the grades

of fineness found in that particular division,—thus furnishing to *dealers* the best means of judging of the general quality of California gold, and also providing *depositors* with a ready method of making their own estimate, by comparing the fineness reported by the Assayers of the Mint with the value set opposite to said fineness in the Table.

As the awkward mode of indicating by *carats*, the fineness of gold, is in use in the community, it may be of some assistance to those not familiar with the subject, to show the relation which this mode sustains to that of the Mint method of notation by *thousandths*.

24 carats represent pure gold, corresponding to 1000 thousandths; substituting 24 in the place of 1000 in the proportion given on page 7, we have the following:

As $24 : \frac{8000}{387} :$: the given weight multiplied by its particular fineness in carats : the value of said weight.

Or, as $24 \times 387 : 8000$; or, dividing these terms by 8, as $3 \times 387 : 1000 :$: the given weight multiplied by its particular fineness in carats : the value of said weight. From this proportion is derived the following

RULE.

Multiply the given weight by 1000, and by its particular fineness in carats, and divide the product by 1161.

NOTE.—It is proper to observe that the carat is divided into 32 equal parts; and as a carat is equivalent to $41\frac{2}{3}$ thousandths, each 32d is equal to about 1·3 thousandths. Mint assaying extends to one half of one-thousandth; its nicety is, therefore, nearly three times greater than that of the carat system.

TABLE A.

SHOWING THE NUMBER OF DEPOSITS OF CALIFORNIA GOLD PRESENTED AT THE MINT FOR COINAGE FROM DECEMBER 8, 1848, TO APRIL 30, 1850, WITH THE FINENESS OF EACH DEPOSIT.

Fineness.	Number of Deposits.	Fineness.	Number of Deposits.	Fineness.	Number of Deposits.	Fineness.	Number of Deposits.	Fineness.	Number of Deposits.	Fineness.	Number of Deposits.
Thous.		Thous.		Thous.		Thous.		Thous.		Thous.	
848½	0	861	5	873½	9	886	219	898½	23	911	2
849	1	861½	4	874	13	886½	122	899	16	911½	2
849½	0	862	4	874½	15	887	179	899½	9	912	5
850	1	862½	2	875	11	887½	114	900	21	912½	1
850½	1	863	5	875½	9	888	147	900½	12	913	3
851	2	863½	5	876	18	888½	73	901	22	913½	2
851½	0	864	2	876½	19	889	109	901½	8	914	0
852	1	864½	3	877	29	889½	93	902	16	914½	1
852½	2	865	3	877½	22	890	95	902½	8	915	2
853	2	865½	6	878	20	890½	55	903	17	915½	1
853½	1	866	5	878½	31	891	54	903½	7	916	0
854	1	866½	5	879	33	891½	38	904	8	916½	3
854½	1	867	5	879½	24	892	60	904½	8	917	0
855	1	867½	6	880	55	892½	47	905	7	917½	1
855½	0	868	11	880½	44	893	45	905½	4	918	2
856	1	868½	7	881	67	893½	37	906	4	918½	0
856½	2	869	10	881½	69	894	43	906½	4	919	0
857	3	869½	11	882	102	894½	27	907	7	919½	1
857½	2	870	7	882½	95	895	34	907½	3	920	0
858	4	870½	11	883	116	895½	35	908	9	920½	0
858½	3	871	8	883½	104	896	38	908½	7	921	2
859	2	871½	11	884	135	896½	30	909	6	921½	0
859½	1	872	11	884½	150	897	27	909½	1	922	1
860	10	872½	8	885	227	897½	14	910	1	922½	0
860½	4	873	13	885½	160	898	30	910½	1	923	0
	46		168		1577		1765		229		29

Number of deposits as above, - - - - 3,814

Besides which, there were of a lower fineness than in the above list, - - - - - - 19

And of a higher fineness, - - - - - 12

Total, 3,845

TABLE B.

VALUE IN U. S. MONEY OF ONE OUNCE TROY OF CALIFORNIA GOLD AFTER MELTING, AT DIFFERENT DEGREES OF FINENESS, WITH AND WITHOUT AN ALLOWANCE FOR THE SILVER IT CONTAINS.

VALUE WITHOUT SILVER.		VALUE WITH AN ALLOWANCE FOR SILVER PARTED.			
Fineness.	Value.	Minimum partible weight.	Fineness of gold.	Fineness of silver.	Value.
Thous.	Dolls. Cents.	Ounces.	Thous.	Thous.	Dolls. Cents.
848½	17 54·0052		848½	146	17 66.6024
849	17 55·0388	44·28	849	146	17 67.6346
849½	17 56·0724		849½	145	17 68.5388
850	17 57·1060	44·80	850	145	17 69.5710
850½	17 58·1395		850½	144	17 70.4752
851	17 59·1731	45·34	851	144	17 71.5074
851½	17 60·2067		851½	143	17 72.4116
852	17 61·2403	45·90	852	143	17 73.4438
852½	17 62·2739		852½	142	17 74.3479
853	17 63·3075	46·46	853	142	17 75.3802
853½	17 64·3411		853½	141	17 76.2843
854	17 65·3747	47·04	854	141	17 77.3166
854½	17 66·4083		854½	140	17 78.2207
855	17 67·4419	47·63	855	140	17 79.2530
855½	17 68·4754		855½	139	17 80.1571
856	17 69·5090	48·24	856	139	17 81.1893
856½	17 70·5426		856½	138	17 82.0935
857	17 71·5762	48·87	857	138	17 83.1257
857½	17 72·6098		857½	137	17 84.0298
858	17 73·6434	49·50	858	137	17 85.0621
858½	17 74·6770		858½	136	17 85.9662
859	17 75·7106	50·16	859	136	17 86.9985
859½	17 76·7442		859½	135	17 87.9026
860	17 77·7778	50·84	860	135	17 88.9349
860½	17 78·8114		860½	134	17 89.8390

There have been 46 deposits of the above degrees of fineness to May 1st, 1850.

12

TABLE B.

(Continued.)

VALUE WITHOUT SILVER.		VALUE WITH AN ALLOWANCE FOR SILVER PARTED.			
Fineness.	Value.	Minimum partible weight.	Fineness of gold.	Fineness of silver.	Value.
Thous.	Dolls. Cents.	Ounces.	Thous.	Thous.	Dolls. Cents.
861	17 79·8450	51·53	861	134	17 90·8713
861½	17 80·8786		861½	133	17 91·7754
862	17 81·9122	52·24	862	133	17 92·5077
862½	17 82·9458		862½	132	17 93·7117
863	17 83·9794	52·97	863	132	17 94·7441
863½	17 85·0129		863½	131	17 95·6481
864	17 86·0465	53·72	864	131	17 96·6805
864½	17 87·0801		864½	130	17 97·5845
865	17 88·1137	54·50	865	130	17 98·6168
865½	17 89·1473		865½	129	17 99·5209
866	17 90·1809	55·30	866	129	18 00·5532
866½	17 91·2145		866½	128	18 01·4573
867	17 92·2482	56·12	867	128	18 02·4896
867½	17 93·2817		867½	127	18 03·3936
868	17 94·3152	56·96	868	127	18 04·4260
868½	17 95·3488		868½	126	18 05·3300
869	17 96·3824	57·84	869	126	18 06·3624
869½	17 97·4160		869½	125	18 07·2664
870	17 98·4496	58·74	870	125	18 08·2998
870½	17 99·4832		870½	124	18 09·2028
871	18 00·5168	59·66	871	124	18 10·2352
871½	18 01·5504		871½	123	18 11·1392
872	18 02·5840	60·62	872	123	18 12·1706
872½	18 03·6176		872½	122	18 13·0755
873	18 04·6512	61·61	873	122	18 14·1080

There have been 168 deposits of the above degrees of fineness to May 1st, 1850.

13

TABLE B.

(Continued.)

VALUE WITHOUT SILVER.		VALUE WITH AN ALLOWANCE FOR SILVER PARTED.			
Fineness.	Value.	Minimum partible weight.	Fineness of gold.	Fineness of silver.	Value.
Thous.	Dolls. Cents.	Ounces.	Thous.	Thous.	Dolls. Cents.
873½	18 05·6847		873½	121	18 15·0119
874	18 06·7183	62·63	874	121	18 16·0444
874½	18 07·7519		874½	120	18 16·9489
875	18 08·7855	63·68	875	120	18 17·9808
875½	18 09·8191		875½	119	18 18·8847
876	18 10·8527	64·77	876	119	18 19·9171
876½	18 11·8863		876½	118	18 20·8211
877	18 12·9199	65·90	877	118	18 21·8535
877½	18 13·9535		877½	117	18 22·7574
878	18 14·9871	67·08	878	117	18 23·7899
878½	18 16·0206		878½	116	18 24·6935
879	18 17·0542	68·30	879	116	18 25·7263
879½	18 18·0878		879½	115	18 26·6302
880	18 19·1214	69·55	880	115	18 27·6627
880½	18 20·1550		880½	114	18 28·5666
881	18 21·1886	70·85	881	114	18 29·5991
881½	18 22·2222		881½	113	18 30·5030
882	18 23·2558	72·20	882	113	18 31·5355
882½	18 24·2894		882½	112	18 32·4393
883	18 25·3230	73·61	883	112	18 33·4719
883½	18 26·3566		883½	111	18 34·3767
884	18 27·3902	75·08	884	111	18 35·4083
884½	18 28·4238		884½	110	18 36·3121
885	18 29·4574	76·60	885	110	18 37·3447
885½	18 30·4910		885½	109	18 38·2485

There have been 1577 deposits of the above degrees of fineness to May 1st, 1850.

14

TABLE B.

(Continued.)

VALUE WITHOUT SILVER.		VALUE WITH AN ALLOWANCE FOR SILVER PARTED.			
Fineness.	Value.	Minimum partible weight.	Fineness of gold.	Fineness of silver.	Value.
Thous.	Dolls. Cents.	Ounces.	Thous.	Thous.	Dolls. Cents.
886	18 31·5246	78·18	886	109	18 39·2810
886½	18 32·5581		886½	108	18 40·1849
887	18 33·5917	79·83	887	108	18 41·2174
887½	18 34·6253		887½	107	18 42·1212
888	18 35·6589	81·56	888	107	18 43·1538
888½	18 36·6925		888½	106	18 44·0576
889	18 37·7261	83·36	889	106	18 45·0902
889½	18 38·7597		889½	105	18 45·9940
890	18 39·7933	85·24	890	105	18 47·0266
890½	18 40·8269		890½	104	18 47·9304
891	18 41·8605	87·20	891	104	18 48·9630
891½	18 42·8940		891½	103	18 49·8668
892	18 43·9276	89·26	892	103	18 50·8994
892½	18 44·9612		892½	102	18 51·8031
893	18 45·9948	91·42	893	102	18 52·8358
893½	18 47·0284		893½	101	18 53·7395
894	18 48·0620	93·69	894	101	18 54·7722
894½	18 49·0956		894½	100	18 55·6759
895	18 50·1292	96·07	895	100	18 56·7086
895½	18 51·1628		895½	99	18 57·6123
896	18 52·1964	98·57	896	99	18 58·6449
896½	18 53·2300		896½	98	18 59·5487
897	18 54·2636	101·19	897	98	18 60·5814
897½	18 55·2971		897½	97	18 61·4850
898	18 56·3307	104·00	898	97	18 62·5177

There have been 1765 deposits of the above degrees of fineness to May 1st, 1850.

TABLE B.

(Continued.)

VALUE WITHOUT SILVER.		VALUE WITH AN ALLOWANCE FOR SILVER PARTED.			
Fineness.	Value.	Minimum partible weight.	Fineness of gold.	Fineness of silver.	Value.
Thous.	Dolls. Cents.	Ounces.	Thous.	Thous.	Dolls. Cents.
898½	18 57·3643		898½	96	18 63·4214
899	18 58·3979	106·94	899	96	18 64·4541
899½	18 59·4315		899½	95	18 65·3578
900	18 60·4651	110·06	900	95	18 66·3905
900½	18 61·4987		900½	94	18 67·2942
901	18 62·5323	113·36	901	94	18 68·3269
901½	18 63·5659		901½	93	18 69·2306
902	18 64·5995	116·86	902	93	18 70·2633
902½	18 65·6331		902½	92	18 71·1669
903	18 66·6667	120·60	903	92	18 72·1996
903½	18 67·7003		903½	91	18 73·1033
904	18 68·7338	124·57	904	91	18 74·1361
904½	18 69·7674		904½	90	18 75·0397
905	18 70·8010	128·82	905	90	18 76·0724
905½	18 71·8346		905½	89	18 76·9761
906	18 72·8682	133·36	906	89	18 78·0088
906½	18 73·9018		906½	88	18 78·9125
907	18 74·9354	138·24	907	88	18 79·9452
907½	18 75·9690		907½	87	18 80·8488
908	18 77·0026	143·50	908	87	18 81·8816
908½	18 78·0362		908½	86	18 82·7852
909	18 79·0697	149·16	909	86	18 83·8180
909½	18 80·1033		909½	85	18 84·7216
910	18 81·1369	155·30	910	85	18 85·7543
910½	18 82·1705		910½	84	18 86·6580

There have been 229 deposits of the above degrees of fineness to May 1st, 1850.

TABLE B.

(Continued.)

VALUE WITHOUT SILVER.		VALUE WITH AN ALLOWANCE FOR SILVER PARTED.			
Fineness.	Value.	Minimum partible weight.	Fineness of gold.	Fineness of silver.	Value.
Thous.	Dolls. Cents.	Ounces.	Thous.	Thous.	Dolls. Cents.
911	18 83·2041	161·94	911	84	18 87·6907
911½	18 84·2377		911½	83	18 88·5744
912	18 85·2713	169·20	912	83	18 89·6271
912½	18 86·3049		912½	82	18 90·5307
913	18 87·3385	177·12	913	82	18 91·5635
913½	18 88·3721		913½	81	18 92·4671
914	18 89·4066	185·84	914	81	18 93·4999
914½	18 90·4392		914½	80	18 94·4035
915	18 91·4728	195·45	915	80	18 95·4362
915½	18 92·5064		915½	79	18 96·3399
916	18 93·5400	206·10	916	79	18 97·3721
916½	18 94·5736		916½	78	18 98·2763
917	18 95·6072	218·00	917	78	18 99·3090
917½	18 96·6408		917½	77	19 00·2126
918	18 97·6744	231·35	918	77	19 01·2454
918½	18 98·7080		918½	76	19 02·1490
919	18 99·7416	246·44	919	76	19 03·1818
919½	19 00·7752		919½	75	19 04·0854
920	19 01·8087	263·63	920	75	19 05·1181
920½	19 02·8423		920½	74	19 06·0218
921	19 03·8759	283·41	921	74	19 07·0545
921½	19 04·9095		921½	73	19 07·9582
922	19 05·9430	306·40	922	73	19 08·9909
922½	19 06·9766		922½	72	19 09·8945
923	19 08·0103	333·41	923	72	19 10·9273

There have been 29 deposits of the above degrees of fineness to May 1st, 1850.